SC106
Product Catalog

SIMPLEX

A Century of Product Integrity

Hydraulic & Mechanical Power

cylinders · hand pumps · mechanical · accessories · power pumps
lifting jacks · hydraulic tools · bolting · presses

Single Acting

Single acting cylinders are hydraulically driven in one direction. These cylinders are used in many general purpose applications when retract speed is not a requirement. This cylinder type requires a pump source with a single acting valve for proper operation.

Both Spring Return and Load Return cylinders are constructed and operated in a similar manner, but function differently on the return.

- ***Spring Return cylinders are hydraulically extended, but utilize a spring for retraction assistance.***
- ***Load Return cylinders are hydraulically extended and retracted by the load or other external forces.***
- ***Simplex 3 Way, 3 Position Suc-O-Matic valve can draw hydraulic oil out of any single acting cylinder. In the retract position, the valve generates enough suction to fully retract any single acting load return cylinder automatically.***

Double Acting

Double acting cylinders are hydraulically driven in both directions. These cylinders are used in many general purpose applications where retraction speed is required or the mechanical forces required for return is not available. This cylinder type requires a pump source with a 4 way valve for proper operation.

- ***Oil entering the advance port exerts pressure on the bottom plunger face raising the piston upward and oil on the retract side exits the retract port.***
- ***When oil is pumped into the retract port, it exerts pressure on the top plunger face causing the plunger to retract and oil exits the advance port.***
- ***A safety relief is installed on the retract side of all Simplex double acting cylinders to prevent over-pressurization in the event the retract line has been blocked.***

Center Hole

Center hole cylinders are available in both single and double acting styles. These cylinders are primarily used for pushing and pulling applications. Both styles have a center tube that allows a rod or cable to pass through the cylinder and assist in tensioning / pulling applications.

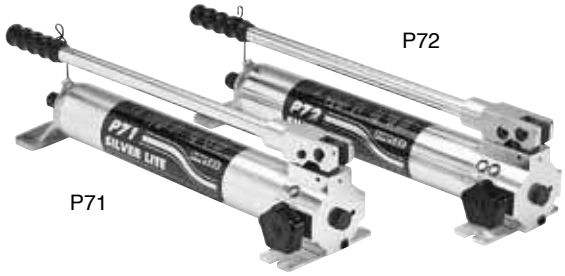
Both single acting and double acting center-hole cylinders are constructed and operated in a similar manner to their standard counterparts.

- ***Single acting center-hole cylinders utilize a spring for retraction. This cylinder type requires a pump source with a 3 way valve for proper operation.***
- ***Double acting center-hole cylinders are hydraulically extended and retracted. This cylinder type requires a pump source with a 4 way valve for proper operation.***

Portable Hand Pumps

Single & two speed compact hand pumps deliver a constant flow to smaller cylinders or hydraulic powered tools regardless of load. Ideal when durability as well as portability are important.

Aluminum Hand Pumps



Aluminum hand pumps are the perfect choice when a light weight pump is required. The alloy construction resists corrosion and stands up to heat, welding sparks and other environments where composite pumps may not be suited.

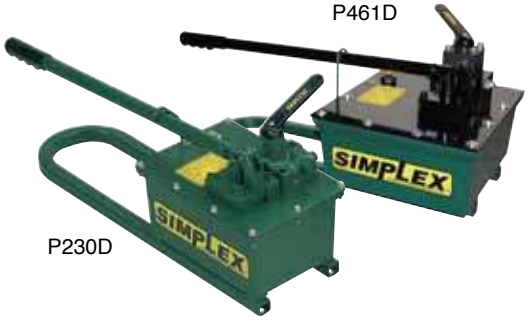
Heavy Duty Hand Pumps

Heavy duty, two speed hand pumps in the low pressure stage deliver a high volume of oil per stroke for fast cylinder speed. Once the load is engaged, the pump automatically switches to the high pressure stage.

Specialty Hand Pumps

Specialty hand pumps are perfect for OEM applications or as emergency backup pumps. The pumps were designed to fit in tight spaces and are ideal for fixed bolt down applications.

Hi-Flow Hand Pumps
With Large Reservoirs



Heavy duty hand pumps with 4 way valves are used to power double-acting cylinders or tools.

Configured Sets

Standard hand pump and single acting cylinder configuration.

G1 Power Pumps
19 cu.in./min. @ 10,000 psi

An intermittent .5 hp power pump that is best suited to power small to medium size tools or cylinders. It's very lightweight, portable and works well for crimping, cutting, pressing, punching and bending applications.

G5 Power Pumps
55 cu.in./min. @ 10,000 psi

Continuous duty 1.5 hp electric and 3 hp air power pumps are perfect for medium size tools and cylinders on construction sites, ship and rail yards and other field applications. It's the perfect choice for production and lifting applications due to its reservoir sizes and valve options.

G3 Power Pumps
46 cu.in./min. @ 10,000 psi

A 1.13 hp continuous duty power pump that is best suited to power small to medium tools and cylinders. Ideal for systems that require high performance, large oil capacities with lightweight portability.

G6 Power Pumps
100 cu.in./min. @ 10,000 psi

Continuous duty 3 hp electric and 5.5 hp gasoline pumps are ideal for medium to large size tools and cylinders. The high flow rate runs multiple cylinders for heavy lifting, high tonnage and large positioning jobs and applications effectively.

G4 Power Pumps
55 cu.in./min. @ 10,000 psi

Continuous duty 1.5 hp electric and 4 hp gasoline pumps are best suited for medium size tools and cylinders. It's a perfect choice for clamping, holding, positioning and lowering and lifting applications due to its reservoir sizes and valve options.

Compact Air Foot Pumps
11 cu.in./min @ 10,000 psi

An intermittent portable foot controlled pump best suited for pressing, production and shop tool applications. Runs effectively on 10CFM @ 60-150 PSI.

2, 3 And 4 Way Control Valves

The 2 and 3 way valves are used to operate single acting cylinders and tools. The 4 way version is used to operate double acting cylinders or tools.

In-Line Valves

Maximize the control and safety factor of your system arrangement with our in-line valves.

Manifolds

Manifolds are the central component of your system arrangement. Precision control needle valves and 3/8" ports are standard. Manifolds can be connected together to accommodate any size system.

Couplers / Fittings

These couplers & fittings provide maximum fluid flow and are plated to resist corrosion. The no-spill style coupler is utilized where safety and environmental needs are a demand.

Gauges

These analog and digital gauges give the operator a window to the system. Select from PSI or tonnage readings to meet your specific requirements. Simplex high pressure gauges offer reliability along with durability.

Hoses

HD rubber and non-conductive thermo-plastic style hoses are ideal for demanding and continuous operation with up to a 4:1 safety factor.

G1 Bolting Pump
19 cu.in. / min. @ 10,000 psi

An intermittent .5 hp pump that is best suited to power small size torque wrenches. It's easy to transport and very lightweight.

Starting weight @ 36 lbs.

G5 Bolting Pump
55 cu.in. / min. @ 10,000 psi

A continuous duty 1.5 hp pump that is best suited for medium to large torque wrenches.

Starting weight @ 75 lbs.

G3 Bolting Pump
46 cu.in. / min. @ 10,000 psi

A continuous duty 1.13 hp pump that is best suited to power small to medium torque wrenches. Ideal for systems that require high performance, with lightweight portability.

Starting weight @ 57 lbs.

G5 Bolting Pump - Air
55 cu.in. / min. @ 10,000 psi

A continuous duty air pump that is best suited for medium to large size torque wrenches. The high flow rate runs multiple tools efficiently.

Starting weight @ 75 lbs.

Bolting Wrenches
Square Drive & Low Clearance Wrenches

Simplex offers a wide variety of hydraulic wrenches available in lightweight square drive design or the flat low clearance design. Optional attachments and accessories are available for both style wrenches to simplify your task.

Hoses & Manifolds

A complete set of high performance, high pressure hose styles and sizes are available to fit any application, along with an 8 port manifold allowing the user the ability to use up to four tools at once.

Hydraulic Hand Jacks

2 Through 100 Ton Hydraulic Hand Jacks

Simplex 2 through 100 ton capacity all purpose jacks are ideal for use in general industrial applications, and are used extensively in maintenance, construction and material handling. The versatility of the Simplex bottle jack has made it a favorite in shipyards, factories, oil fields, mines & general industries.

Hydraulic Toe Jacks

2 Through 10 Ton Hydraulic Toe Jacks

Simplex hydraulic toe jacks are the solution to all of your low clearance lifting problems. Choose from the widest variety of self contained toe jacks in the industry. Capacities range from 2 through 10 tons. The Simplex TJH2 is a 2 ton self-contained toe jack utilizing .62" minimum toe height and over 4" of travel.

Ratchet Jacks

Are ideal for mills and factory maintenance, oil fields, shipyards, farms, machinery riggers, construction contactors, mining operators, bridge and rail car repair and heavy-duty industrial maintenance. These are the most versatile, general-purpose jacks available. Rugged construction permits safe, efficient lifting, lowering, skidding, moving, sustaining and leveling with the important SIMPLEX feature that provides full lift capacity on the toe or on the cap.

Super Jacks

Are used for inspecting and renewing journal brasses, bridge, tank and structural steel erectors, presses, shipbuilding and all industries where powerful, all-position jacks are required. These jacks will hold the load indefinitely and offer heat treated, alloy steel forgings, bronze nuts, ball bearings, positive shoulder stops and high gear ratios. The ratchet mechanisms are fully enclosed to protect them from the elements.

Screw Jacks

Are suitable for house movers, leveling, supporting, shop and factory maintenance, riggers, locomotive repairs, drillers and farm applications. Malleable housings are lighter and unbreakable. A hardened, large chrome-moly ball floating cap centers the load automatically and reduces friction by 88%. The steel cap is constructed of corrugated, drop-forged steel with a self-leveling 9 degree float.

Push-Pull Jacks

Are essential for any maintenance repair or production work in all types of shops and field applications. Loadbinder Jacks are used on the construction of bridges and concrete and steel engineering projects. Gravity type pawl is used on boats and barges.

Trench Braces & Roof Supports

Are designed for putting up cross timbers and steel beams, aligning steel mine cars, a temporary prop in connection with loading equipment, pulling up and removing slack in power cables and pulling and pushing conveyor lines and controlling the tail piece.